In this issue of COVID-19 Morbidity and Mortality Weekly Update (MMWU) N° 22 (21-27 July 2020):

- dashboard with key figures;
- detailed epidemiological update on COVID-19 pandemic in Bangladesh;
- daily and weekly distribution of COVID-19 cases and related deaths;
- gender and age distribution of COVID-19 deaths by division;
- overall and cumulative weekly attack rate and per division;
- growth factor of daily COVID-19 cases;
- death and recovery rates of closed cases;
- number of COVID-19 testing laboratories and number of daily tested;
- comparison data with selected countries in South East Asia; and
- floods update.

### Infections

<table>
<thead>
<tr>
<th>Tested</th>
<th>Confirmed</th>
<th>Recovered</th>
<th>Dead</th>
<th>Hotline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,124,417</td>
<td>226,225</td>
<td>125,683</td>
<td>2,965</td>
<td>17.6 million</td>
</tr>
</tbody>
</table>

### Test/1 million

<table>
<thead>
<tr>
<th>Test/1 million</th>
<th>New Cases</th>
<th>Recovery Rate</th>
<th>CFR%</th>
<th>AR/1 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,602</td>
<td>2,772</td>
<td>55.6%</td>
<td>1.31%</td>
<td>1,328</td>
</tr>
</tbody>
</table>

### Laboratories

- 81 COVID-19 Labs
- 83,259 Samples
- 60.8% Inside Dhaka Tests
- 20.1% Positive Tests

### PPE Stock

- 960,951
- 6,623,786
- 185,777
- 1,041,003

### PoE Screening

- 388,916
- 29,519
- 7,029
- 357,048
1. Highlights

As of 27 July 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR), there are 226,225 confirmed COVID-19 cases¹ in Bangladesh, including 2,965 related deaths; Case Fatality Rate (CFR) is 1.31%.

On 21 July 2020, Ministry of Health and Family Welfare Health, Services Division issued a circular No. 45.170.001.00.00.002.2020-199 regarding the mandatory use of using face masks for all officials and employees of government, semi-government, autonomous and private offices including visitors/service seekers; mask use should be ensured for drivers of public transports (road, naval, railway and air), their assistants and passengers. Passengers must wear mask before boarding the public transport; all sellers and buyers must use mask in local huts and bazaars; no selling-buying should be done without mask wearing mask, which should be ensured by local administrations and hut-bazaar committees; and sellers and customers in the shopping malls, markets and shops should also wear masks. Full document: http://www.mohfw.gov.bd/index.php?option=com_content&view=article&id=58%3Acirculars&catid=43%3ACirculars&lang=en.

On 22 July 2020, the Civil Aviation Authority (CAAB) issued a circular No. 30.31.0000.112.42.001.20-3226 regarding the "Requirement of COVID-19 Test Certificate for passengers to Travel Abroad" notifying that all foreign passport holders intending to depart for any international destination from any of the airports of Bangladesh shall have to obtain COVID-19 negative test certificate. The following categories exempt from such requirement: diplomats, members of UN organizations and sister organization of UN, Heads of international organizations and their family members; and foreign investors and foreign passport holders who stayed in Bangladesh for less than 14 days. In addition, COVID-19 Test Certificate is not mandatory for children below the age of 10 years. Full document: www.caab.gov.bd.

2. Coordination

On 20 July 2020, WHO published Emergency Global Supply Chain System (COVID-19) catalogue, which lists all medical devices, including personal protective equipment, medical equipment, medical consumables, single use devices, laboratory and test-related devices that may be requested through the COVID-19 Supply Portal. The items in the catalogue represent an initial prioritized selection of items and are subject to constant review; item costs are estimates only. Full document: https://www.who.int/publications/i/item/emergency-global-supply-chain-system-(covid-19)-catalogue.

On 23 July 2020, WHO published a new guidance for conducting COVID-19 intra-action review (IAR). For the purpose of the guidance, an intra-action review (IAR) is defined as a country-led, facilitated discussion that allows national and subnational stakeholders of the COVID-19 response to reflect on actions being undertaken to prepare for and respond to the COVID-19 outbreak at the country level in order to identify current best practices, gaps and lessons learned, and (ii) propose corrective actions to improve and strengthen the continued response to COVID-19. Additionally, IAR findings and recommendations may contribute to improving the management of concurrent emergencies and to long-term health security. Full document: https://www.who.int/publications/i/item/WHO-2019-nCoV-Country_IAR-2020.1.


¹ WHO Bangladesh COVID-19 Situation Reports present official counts of confirmed COVID-19 as announced by the IEDCR on the indicated date. Difference in data between the WHO reports and other sources can result from using different cutoff times for the aggregation and reporting of the total number of new cases in the country.
3. Surveillance and Laboratory

Between 8 March and 27 July 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR) there were two-hundred-twenty-six-thousand-two-hundred-twenty-five (226,225) COVID-19 confirmed by rt-PCR, including two-thousand-six-hundred-sixty-eight (2,668) related deaths (CFR 1.29%).

In the current week (epidemiological week 30), in comparison to the previous epidemiological week, the number of new weekly COVID-19 cases decreased by 8.7% (18,982 and 20,730 respectively) and the number of COVID-19 new weekly deaths decreased by 16.5% (300 and 266).

The figures below are showing the daily and weekly distribution of reported confirmed COVID-19 cases and deaths, 08 March – 27 July 2020, Bangladesh.
Out of the total 226,255 COVID-19 cases registered as of 27 July 2020, 55.56% (125,683/266,255) - recovered, 1.31% (2,965) - died and 43.13% (97,577) are active cases.

The figure below is showing active vs recovered confirmed COVID-19 cases outcome per epidemiological week, 08 March – 27 July 2020, Bangladesh.

In the epidemiological week 30, the number of COVID-19 active cases decreased by 7.4%, in comparison to the previous week (3,130 and 3,361) and the number of recovered COVID-19 cases decreased by 47.3% (12,240 and 18,030 respectively).

The figure below is showing the weekly outcomes of reported confirmed COVID-19 cases, 08 March – 27 July 2020, Bangladesh.
As of 20 July 2020, there were 128,648 (56.9%) COVID-19 cases with known outcome (closed cases). Out of all closed cases, 97.7% (125,683/128,648) were cured and 2.3% (2,965) died. The recovery rate of 97.7% in the closed cases didn’t show any change since 16 June 2020. The death rate on closed cases in Bangladesh is lower than the 6.0% (652,033/10,694,243) global average as of 27 July 2020.

The figure below is showing the death and recovery rates over cumulative closed confirmed COVID-19 cases, 08 March – 27 July 2020, Bangladesh.

According to the available data, 26.9% cases were confirmed in people between 31 and 40 years old, 20.8% - in the age group of 21 to 30, 18.8% - 41 to 50 years and 15.0% in the age group between 51 and 60 years old. As of 27 July 2020, the highest death rate (30.0%) was reported in the age group of 61 to 70 years old, 24.5% in the age group between 51 and 60 years and 24.9% in the older age group of 71 and above. Male represented 72% and 79% of the of total reported confirmed COVID-19 cases and deaths respectively.

The figure below is showing division and Age-Sex distribution of the reported confirmed COVID-19 deaths, 27 July 2020, Bangladesh.
As of 27 July 2020, geographical distribution of confirmed reported COVID-19 cases was available on 100% of cases (226,225/226,225). Of all cases, 65.4% reported from Dhaka division, 14.6% from Chattogram, 5.2% from Rajshahi, 4.8% from Khulna, 3.2% from Sylhet, 2.5% from Rangpur, 2.4 from Barishal and 2.2% from Mymensingh division. The figure below is showing the daily distribution of reported confirmed COVID-19 cases per division, 14 April – 27 July 2020.

Available data allows us to see how quickly the number of confirmed cases increased in different divisions in Bangladesh by looking at the case doubling time in each division. As of 27 July 2020, case doubling time is 9.8 days in Dhaka division, 11 days in Chattogram, between 12 to 14 days in Rajshahi and Khulna divisions, Sylhet, Barishal and Rangpur divisions are near to 15 days and 18 days for Mymensingh division. The figure below is showing the case-doubling time of COVID-19 confirmed cases in all divisions starting from the day each reported 100th confirmed cases, 20 July 2020, Bangladesh.
Case doubling time is constant at 10 days in Dhaka city for last two weeks. Cases are doubling 12 days in Faridpur district, Narayanganj, Gazipur, Munshiganj, Gopalganj and Rajbari districts are in between 16 and 18 days.

The figure below is showing the growth of COVID-19 confirmed cases in all districts of Dhaka division starting from the day each reported 100th confirmed cases, 27 July 2020, Bangladesh.

In Chattogram division by 20 July 2020 case doubling time is constant in Chattogram district at 11 days. This week, Cumilla, Noakhali, Cox’s Bazar, and Bandarban have increased near to – 15 days, while Feni and Rangamati districts are at – 15 days like the previous week.

The figure below is showing the growth of COVID-19 confirmed cases in all districts of Chattogram division starting from the day each reported 100th confirmed cases, 20 July 2020, Bangladesh.
The figures below are showing the daily distribution of reported confirmed COVID-19 cases and rolling three-days average per division, 14 April – 27 July 2020, Bangladesh.
On 27 July, Bangladesh overall attack rate (AR) is 1,328 per 1 million (226,255/170,306,489) and 100% (64/64) of districts with the total population\(^2\) of 170,306,468 people have reported confirmed COVID-19 cases. In the reported week (epidemiological week 30), COVID-19 cumulative weekly AR increased by 8.5%, in comparison to the previous week AR (1,312 and 1,201 respectively).

**The figure below is showing the cumulative weekly COVID-19 attack rate, 08 March – 27 July 2020, Bangladesh.**

![Graph showing cumulative weekly COVID-19 attack rate, 08 March – 27 July 2020, Bangladesh.](image)

According to the available data, the highest AR continues to be observed in the Dhaka division (3,433.0/1,000,000). Within the Dhaka division, Dhaka city has the highest AR (13,968.7/1,000,000) followed by Faridpur (1,994.9), Narayanganj (1,671.1), Munshiganj (1,555.1), Gopalganj (1,043.2), Gazipur (1,031.9), Rajbari (903.2), Madaripur (826.2), Shariatpur (746.4), Dhaka (District) (657.1), Narsingdi (647.8), Kishoreganj (565.5), Manikganj (512.5) and the lowest AR 343.2 was reported from Tangail district.

The 2nd highest COVID-19 AR is reported from Chattogram division (982.13/1,000,000), the AR in all the 11 districts is over 550 per million. Within the division, Chattogram district reported the highest AR (1,540.0/1,000,000) followed by Cox’s Bazar (1,206.3), Bandarban (1,150.0), Rangamati (838.7), Cumilla (817.6), Noakhali (813.4), Feni (718.5), Khagrachhari (659.9), Lakshmipur (641.2), Chandpur (589.5) and the lowest AR 553.5 was reported from Brahmanbaria district.

The 3rd highest AR in the country was reported from Sylhet division (615.3/1,000,000) with the highest AR in Sylhet district (944.5/100,000) followed by Sunamganj (477.7), Habiganj (445.4) and 368.3 in Maulvibazar district.

Khulna division has taken the fourth highest in the overall AR with 577.6/1,000,000 while the highest AR district is Jhenaidah (1083.3/1,000,000) followed by Magura (846.3), Khulna (814.2), Meherpur (668.5), Narail (537.9), Chuadanga (504.9), Satkhira (479.5), Jashore (408.1), Kushtia (291.5) and the lowest AR 290.5 in Bagerhat district.

In Barishal division the overall AR is 558.2/1,000,000 with the highest AR in Barisal district (863.9/1,000,000) followed by Barguna (560.8), Patuakhali (539.1), Jhalokathi (529.0), Pirojpur (487.8) and the lowest 229.0 in Bhola district.

Rajshahi division has overall AR (541.7/1,000,000) with the highest AR in Bogura district (1,137/1000000), followed by Rajshahi (895.6), Joypurhat (616.5), Natore (456.4), Sirajganj (353.3), Pabna (275.9), Chapainawabganj (204.3) and Naogaon districts is 135.6/1,000,000.

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\(^2\) Source: Population projection from 2011 Census, Bangladesh Bureau of Statistics
Although **Mymensingh division** reported an overall AR of 338.4/1,000,000, **Mymensingh** district reported high AR (431.8/1000000), followed by **Jamalpur** (325.7), **Netrakona** (234.4), and 178.7 in **Sherpur** district. The lowest AR is reported from **Rangpur division** (304.9/1,000,000) and AR in all the 8 districts are below 500 per million. **Rangpur** district having the highest AR of 480.0/1,000,000 followed by **Dinajpur** (406.8), **Nilphamari** (287.7), **Lalmonirhat** (231), **Panchagarh** (227.8), **Gaibandha** (218.3), **Thakurgaon** (204.4) and the lowest 178.2 in **Kurigram** district.

The following figure is showing the COVID-19 attack rate per 1,000,000 population in selected divisions, 16 April - 27 July 2020, Bangladesh.

Growth factor (every day’s new cases / new cases on the previous day) between 0 and 1 indicates a decline; when it is above 1 it signals an increase, and if is persistently above 1 this could signify exponential growth. Since the beginning of June 2020, the GF has been within the range of 0.8 – 1.2, and on 27 July 2020, it is **1.22**.

The figure below is showing the Growth Factor of daily confirmed COVID-19 cases, 08 March – 27 July 2020, Bangladesh.
As of 27 July 2020, according to the IEDCR, 1,124,417 COVID-19 tests with the overall positivity rate of 20.12% were conducted in Bangladesh by 81 laboratories 46 laboratories in Dhaka city (56.8%) and 35 laboratories outside Dhaka (43.2%). The latest laboratories, which have started the testing: out Dhaka - Bhola 250 General Hospital, Bhola. 60.8% (683,228/1,124,417) of all samples were tested by laboratories in the Dhaka city, and 39.2% (441,189) - outside Dhaka.

COVID-19 testing coverage has been gradually increasing in Bangladesh, reaching 6,116/1,000,000: now almost reached Sri Lanka (6,708/1,000,000) but is lower than Thailand (9,817/1,000,000), India (11,797/1,000,000), Nepal (22,196/1,000,000), Malaysia (28,945/1,000,000) and Maldives (130,913/1,000,000).

The correlation coefficient (R) is a statistical measure of the strength of the relationship between the relative movements of two variables. A correlation of 1.0 shows a perfect positive correlation. The analysis of data on the number of samples tested and number of confirmed COVID-19 cases in Bangladesh showed R between the two variables as 0.984 (positive correlation).

The graphs below are showing the weekly and cumulative number of COVID-19 conducted tests and daily number of samples tested and number of daily confirmed COVID-19 cases, 08 March – 27 July 2020, Bangladesh.
Since Bangladesh started to conduct COVID-19 testing in February 2020, the number of COVID-19 laboratories has increased from 1 in Dhaka to 81 across the country. Despite the increase of the number of laboratories, a decrease in the number of daily tested samples has been observed since 03 July 2020.

The graph below is showing the number of COVID-19 testing laboratories and daily number of COVID-19 tests, 03 May – 27 July 2020, Bangladesh.

Available data allows us to see how quickly the number of confirmed cases increased in Bangladesh and some other countries in the WHO South-East Asia region: India, Indonesia, Thailand and Sri Lanka. As of 27 July 2020, the overall case doubling time in Bangladesh has slowed to 12.0 days this week (2.5 days more in comparison with the epidemiological week 29).

The figure below is showing the growth of COVID-19 confirmed cases in selected South East Asian countries starting from the day they reported 500th confirmed cases, 27 July 2020.
As of 27 July 2020, the death doubling time in Bangladesh is 17 days (4 day more in comparison with the previous epidemiological week).

The figure below is showing the growth of COVID-19 confirmed deaths in selected South East Asian countries starting from the day they reported 50th confirmed cases, 27 July 2020.

4. Contact Tracing, Points of Entry (PoEs) and Quarantine

According to DGHS, as of 27 July 2020, the current institutional quarantine capacity in the country is represented by 629 centres across the 64 districts, which can receive 31,991 persons. A total of 24,469 individuals were placed in quarantine facilities and of them 18,847 (77.2%) have been already released. By 27 July 2020, in total 47,776 individuals were isolated in designated health facilities of them 28,769 (60.2%) have been released.

The figure below is showing the number of individuals in hospital isolation and released, 05 May – 27 July 2020, Bangladesh.
In the reported week (epidemiological week 30), the number of international flights increased by 37.2%, in comparison to the previous week (59 and 43) leading to decrease the number of passengers by 37.1% (12,462 and 9,089 respectively).

The figures below are showing the weekly international flights and number of passengers, 27 April – 27 July 2020, Bangladesh.

5. Case Management and Infection Control

The WHO Prequalification Unit continues to assess products for Emergency Use Listing (EUL) for candidate in vitro diagnostics (IVDs) to detect SARS-CoV-2. To date, 15 products have been listed as eligible for WHO procurement based on their compliance with WHO EUL requirements. The following IVDs are therefore eligible for EUL submission: assays for the detection of SARS-CoV-2 nucleic acid; rapid diagnostic tests for the detection of IgM/IgG to SARS-CoV-2; and rapid diagnostic tests for the detection of SARS-CoV-2 antigens. Updated information on the EUL is available online at https://www.who.int/diagnostics_laboratory/EUL/en/.

In collaboration with WHO, United Nations Office on Drugs and Crime (UNODC) has issued a research brief on COVID-19 related crime and substandard/falsified (SF) medical products. The brief highlights an increased trafficking in falsified medical products due to COVID-19. It mentions that transnational organized crime groups take advantage of gaps in national regulation and oversight to peddle substandard and falsified medical products and stresses the need to help countries increase cooperation to close gaps, build law enforcement and criminal justice capacity, and drive public awareness to keep people safe.” Full document: https://www.unodc.org/documents/data-and-analysis/covid/COVID-19_research_brief_trafficking_medical_products.pdf

6. Risk Communication and Public Awareness

WHO together with Risk Communication and Community Engagement (RCCE) partners are intensifying communication activities on personal and community prevention measures prior to Eid ul Adha festivities, especially related to transportation, religious places and shopping practices. To this end, scaled-up communication through leaflets, posters, mosques miking has been set up around transportation hubs such as train, bus or boat stations as large movements of people are expected to take place between districts and divisions. Furthermore, communications activities have also been scaled up towards religious leaders that are encouraged to stronger promote and enforce the observance of protective measures among worshippers during Eid, when massive gatherings are expected. Moreover, additional communication materials have been developed and disseminated for increasing awareness and observance of
protection measures during the increased shopping activities before the Eid, in all types of markets or shops, including cattle markets.

In addition to the dissemination of information through a large variety of channels, RCCE partners are strengthening the monitoring and evaluation mechanisms in order to have a proper understanding of the efficiency and efficacy of the public information campaigns. In this regard, several surveys are planned or currently implemented, either online through social media or various partners platforms, either offline conducted by volunteers or SMS based evaluations.

7. Monsoon Floods Update:

According to the report on the Joint Needs Assessment (JNA) conducted by the Needs Assessment Working Group (NAWG) of Humanitarian Coordination Task Team (HCTT), Monsoon floods 2020 have affected total of 21 districts in northern and northern-eastern part of Bangladesh. Based on considerations of three major dimensions such as hazard impacts, vulnerability impacts and response capacity, the following 7 districts are recognized as severely affected: Jamalpur, Kurigram, Lalmonirhat, Sirajganj, Shariatpur, Gaibandha, and Sunamganj. More than seven hundred thousand (>700,000) families are waterlogged across the country.

Between 30 June and 27 July 2020, the DGHS Health Emergency Operations Centre & Control Room recorded a total of 12,252 cases (nearly 50% - from Acute Watery Diarrhea) and total of 122 deaths (more than 80% from drowning). In addition to possibility of communicable disease outbreaks due to acute shortages of food, pure drinking water and inadequate sanitation system in the affected areas, there is also a high potential for fast spread of COVID-19 among the people staying in the flood shelters.

Mobile medical teams (MMTs) formed by the DGHS are working in the affected areas. Emergency drugs (Antibiotic, IV fluids, ORS, WPT, Snake Antivenom etc) from the prepositioned medical buffer stock, mainly supported by WHO, are being actively used to manage health problems; the stocks need to be replenished as soon as possible.

Health Cluster Co-Leads (DGHS and WHO) are monitoring the overall flood situation from the National Health Emergency Operations Centre and Control Room of DGHS. WHO Surveillance & Immunization Officers (SIMO) and Divisional Coordinators (DCs) are providing support to the District Civil Surgeon Offices and Divisional Director Offices in disease surveillance and coordination activities without hampering routine immunization activities. A special health cluster meeting was supposed to be held on 27 July but due to unavoidable circumstances the meeting was postponed. A new date for the Health Cluster meeting will be announced soon.

Photo Credit: Social Media, Bangladesh
8. Useful COVID-19 links:


Latest global WHO Situation Report # 189 as of 19 July 2020: [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200726-covid-19-sitrep-188.pdf?sfvrsn=f177c3fa_2](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200726-covid-19-sitrep-188.pdf?sfvrsn=f177c3fa_2)


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